

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: INVUE

Report Number: P401228

Luminaire Tested: **ENT-SA1B-830-U-T3**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401228
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-13)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1B-830-U-T3
Description: ENTRI LED LUMINAIRE
(1) 80 CRI, 3000K, 450mA LIGHTSQUARE WITH 16 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2773 lumens
Efficiency: N/A
Efficacy: 109.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G1

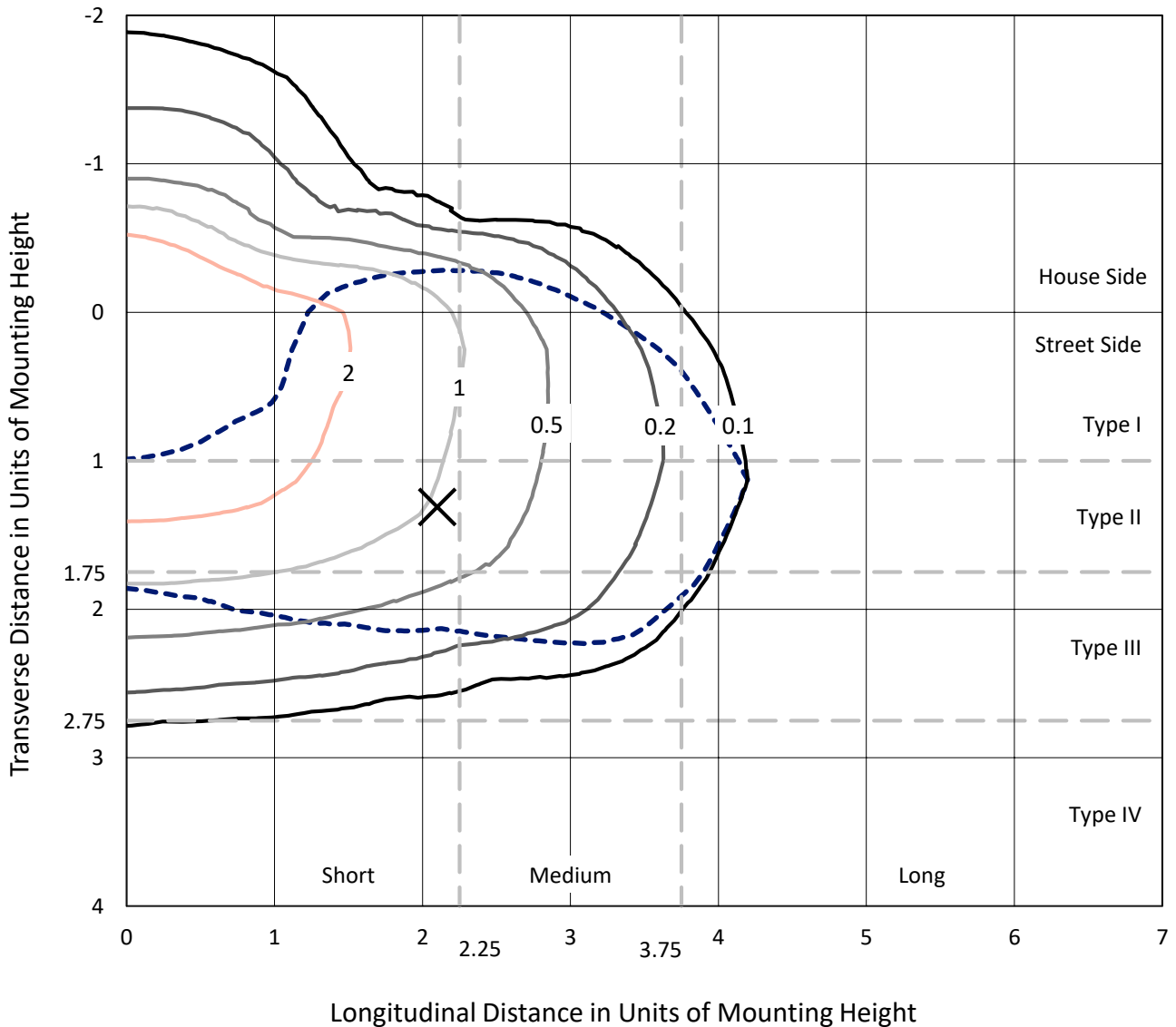
Input Watts (W): 25.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

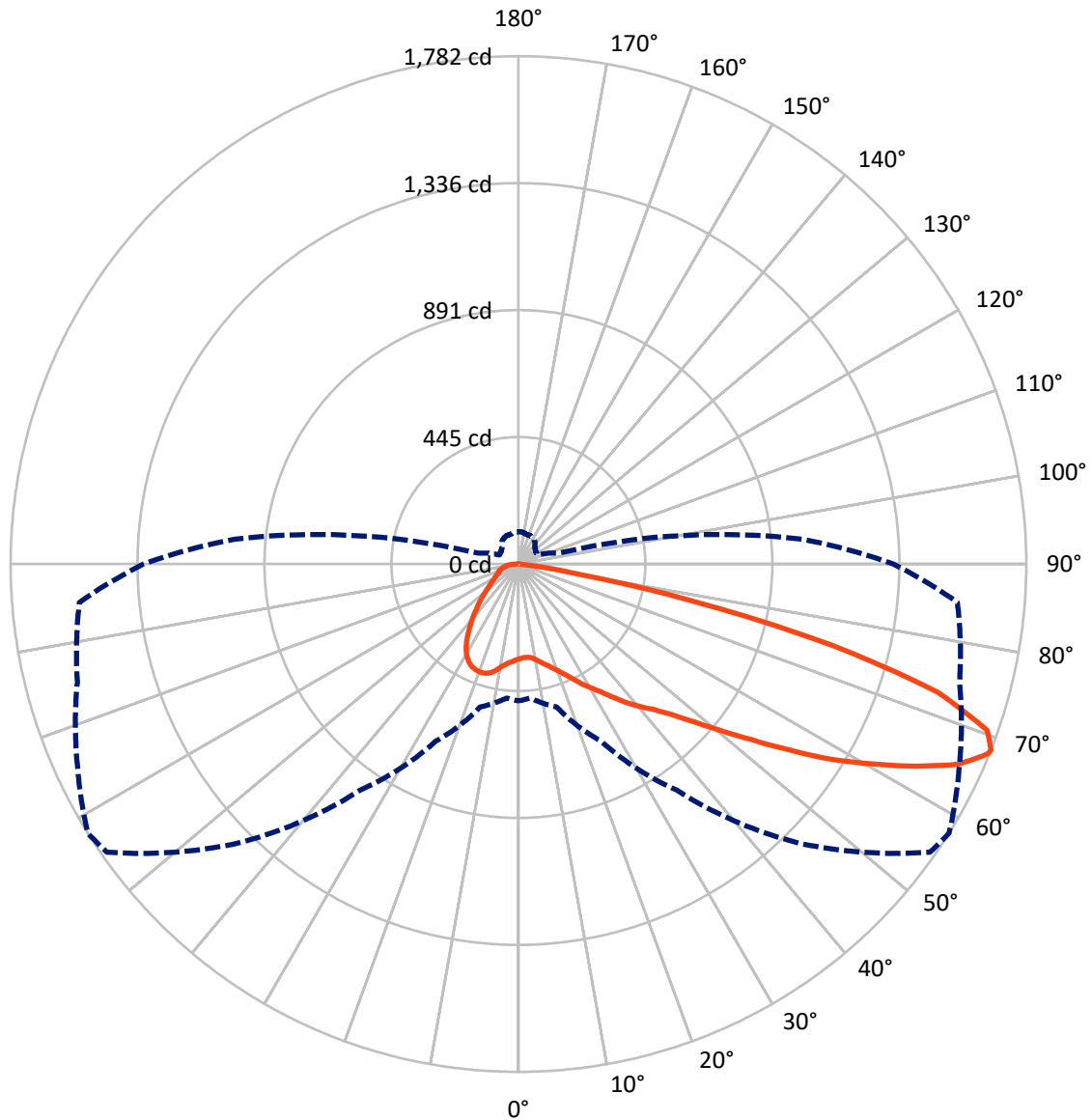
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.7 fc
 Type III - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	649.3	0.0	649.3
	% Fixture	23.4	0.0	23.4
Street Side	Lumens	2123.7	0.0	2123.7
	% Fixture	76.6	0.0	76.6
Total	Lumens	2773.0	0.0	2773.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	32.8	1.2
10°-20°	107.3	3.9
20°-30°	192.9	7.0
30°-40°	283.4	10.2
40°-50°	415.6	15.0
50°-60°	621.3	22.4
60°-70°	726.5	26.2
70°-80°	358.2	12.9
80°-90°	35.0	1.3
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	2773.0	100.0
0°-180°	2773.0	100.0



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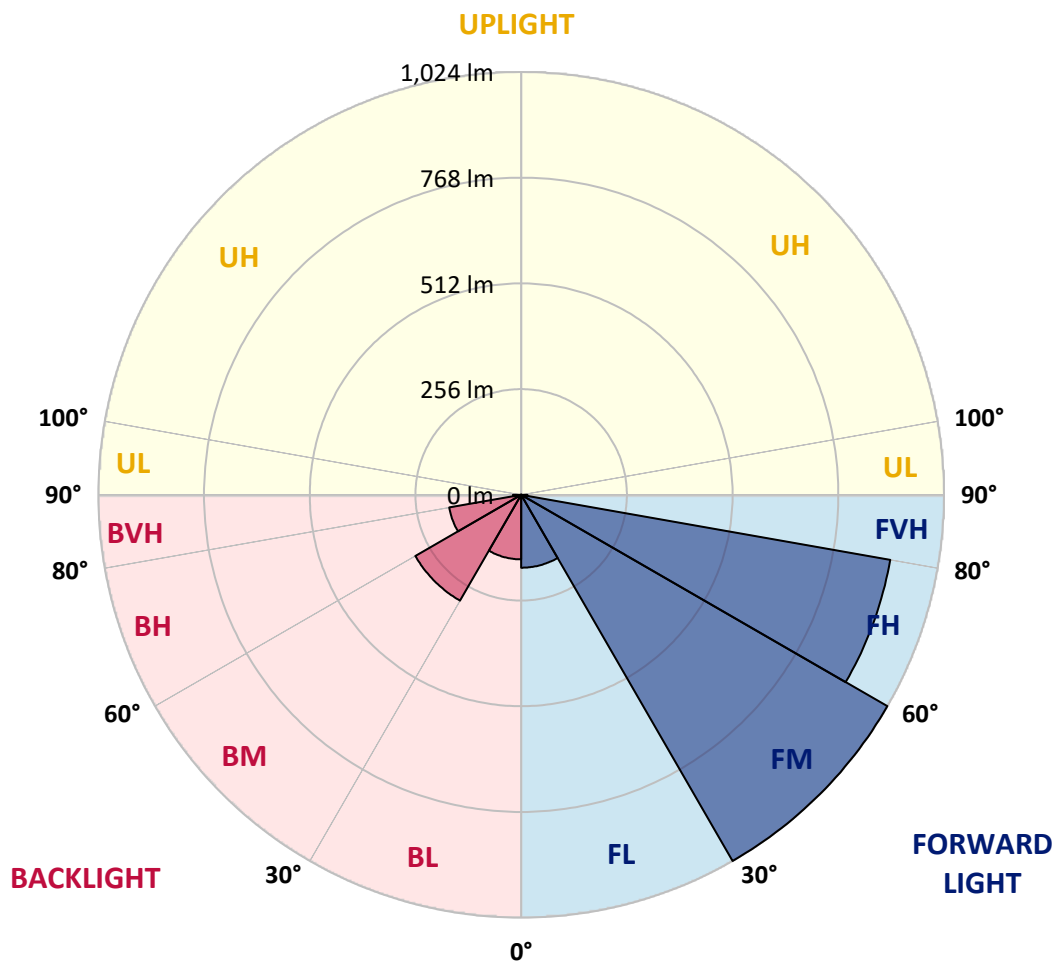
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	176.7	6.4			
FM (30°-60°)	1024.2	36.9			
FH (60°-80°)	907.8	32.7			G1/1800
FVH (80°-90°)	15.1	0.5			G1/100
BL (0°-30°)	156.3	5.6	B1/500		
BM (30°-60°)	296.1	10.7	B1/1000		
BH (60°-80°)	176.9	6.4	B1/500		G1/500
BVH (80°-90°)	19.9	0.7			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	333.0	333.0	333.0	333.0	333.0	333.0	333.0	333.0	333.0	333.0	333.0
2.5°	324.9	324.9	326.0	326.4	327.2	328.0	328.7	329.1	330.3	331.8	332.6
5°	322.2	322.5	323.3	323.7	324.9	326.4	327.6	328.4	330.3	333.4	335.3
7.5°	328.4	329.5	329.9	330.3	330.7	331.8	331.8	332.2	334.2	337.3	340.0
10°	338.4	339.2	340.4	341.5	342.7	343.5	341.1	341.5	342.3	345.4	349.3
12.5°	351.2	351.2	351.6	353.1	354.3	356.6	354.3	354.3	354.3	357.0	361.7
15°	365.5	364.8	364.8	366.3	366.7	368.2	367.1	367.1	368.6	371.3	376.0
17.5°	381.8	382.9	381.8	381.0	379.9	380.6	381.4	382.2	385.3	389.5	392.2
20°	405.4	407.3	406.6	403.5	398.4	396.1	398.8	400.4	406.6	411.6	412.0
22.5°	443.0	441.8	440.6	435.2	425.2	419.0	419.3	421.7	431.4	439.1	435.2
25°	477.8	479.0	479.0	471.2	458.1	445.3	446.5	447.6	457.3	464.3	453.8
27.5°	520.0	519.2	518.9	508.4	492.5	480.1	473.6	476.7	483.6	486.3	466.2
30°	563.8	566.9	563.8	549.1	534.0	518.1	504.9	504.1	507.6	507.2	480.9
32.5°	616.4	613.7	612.6	595.5	576.6	555.6	539.0	536.3	534.3	531.6	498.3
35°	657.1	660.6	660.6	645.9	623.4	602.9	576.9	574.6	570.0	561.1	521.2
37.5°	705.1	704.3	707.0	690.0	667.5	647.8	623.8	617.2	606.8	593.6	548.3
40°	752.0	753.9	760.1	739.6	719.0	703.6	669.5	657.5	641.6	629.6	587.8
42.5°	815.8	818.6	820.9	803.8	779.5	765.5	712.9	697.8	688.8	686.5	640.1
45°	893.3	897.9	899.9	884.4	870.4	837.1	767.4	753.5	743.8	753.9	711.3
47.5°	967.6	965.3	974.2	973.8	975.4	935.5	846.1	825.1	815.8	841.4	793.0
50°	1009.5	1012.9	1032.3	1052.0	1079.5	1050.9	937.0	916.1	905.3	937.0	889.0
52.5°	1031.1	1035.8	1061.7	1117.1	1175.6	1162.0	1046.6	1023.4	1014.1	1045.1	992.0
55°	1033.1	1035.8	1070.6	1156.6	1248.7	1253.0	1171.7	1149.6	1136.8	1157.0	1104.3
57.5°	1000.9	992.8	1052.8	1162.4	1295.6	1347.9	1309.2	1293.3	1257.3	1279.0	1243.7
60°	943.6	951.8	1010.6	1138.4	1315.3	1421.8	1447.0	1423.0	1381.2	1390.1	1394.0
62.5°	856.9	867.3	928.5	1082.6	1299.5	1484.6	1574.4	1562.4	1506.2	1501.6	1508.6
65°	733.4	727.2	795.3	960.7	1224.4	1505.5	1699.5	1694.4	1627.4	1572.8	1575.6
67.5°	528.9	523.1	570.7	741.5	1021.1	1427.6	1766.1	1777.3	1700.6	1604.2	1562.4
68°	480.1	472.0	519.6	685.4	968.8	1382.7	1762.6	1781.9	1706.0	1602.3	1546.1
70°	276.5	263.3	309.4	447.2	713.2	1164.0	1691.3	1744.8	1693.3	1564.7	1439.6
72.5°	86.7	86.7	119.6	180.8	350.0	736.5	1447.0	1538.0	1548.8	1422.2	1196.5
75°	54.2	54.2	62.3	85.6	139.4	312.5	998.2	1136.8	1230.6	1197.3	872.4
77.5°	36.8	36.0	41.4	53.0	77.8	100.3	501.0	615.7	752.7	817.4	510.3
80°	20.1	20.5	25.6	31.8	44.1	46.5	147.1	207.9	331.5	388.4	193.6
82.5°	11.6	11.2	12.4	13.9	19.4	20.1	42.2	51.9	86.7	80.5	51.9
85°	0.0	0.4	0.4	0.4	0.8	1.9	5.4	8.1	13.2	18.2	12.8
87.5°	0.0	0.0	0.0	0.0	0.4	0.4	0.8	0.8	0.8	0.8	1.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	333.0	333.0	333.0	333.0	333.0	333.0	333.0	333.0	333.0	333.0	333.0
2.5°	333.4	334.5	336.5	338.0	338.8	338.0	340.7	340.4	341.1	341.1	341.9
5°	336.9	338.4	341.9	343.8	345.8	346.6	349.6	350.4	352.0	352.7	352.4
7.5°	341.9	343.8	348.1	351.6	354.3	356.2	361.3	363.6	365.9	366.7	367.5
10°	351.2	353.9	358.6	362.8	366.7	369.4	373.7	376.8	379.1	379.9	380.6
12.5°	363.6	366.7	372.5	378.3	382.6	384.1	383.7	382.9	382.9	382.6	382.9
15°	377.9	381.0	388.4	393.8	394.2	389.1	382.2	378.7	377.9	377.9	378.3
17.5°	394.6	398.4	403.1	406.2	398.8	386.4	378.3	374.8	374.0	373.7	372.9
20°	413.5	415.9	417.4	413.5	397.3	382.9	373.7	368.6	364.8	364.4	362.8
22.5°	433.7	432.9	431.0	417.0	393.0	374.8	362.0	352.7	347.7	347.3	345.8
25°	448.4	445.3	439.5	417.8	385.3	361.7	343.5	328.7	322.2	319.1	319.8
27.5°	458.1	451.5	441.4	413.9	371.7	341.5	316.0	296.6	286.9	285.4	286.5
30°	469.7	459.2	443.0	404.2	352.4	313.3	280.0	260.6	255.2	252.5	253.2
32.5°	483.6	470.1	448.0	389.5	328.0	280.3	244.3	230.8	224.6	219.5	221.1
35°	501.8	484.8	456.1	368.6	297.0	245.5	218.8	206.4	195.2	189.7	190.1
37.5°	523.1	503.8	463.1	344.2	263.3	219.2	196.7	182.0	168.0	157.6	155.7
40°	557.2	541.3	468.9	317.1	231.2	197.5	175.0	158.4	145.2	134.7	133.6
42.5°	614.1	586.6	469.3	284.6	203.7	178.9	157.2	139.0	124.3	115.4	115.0
45°	681.1	638.5	461.2	249.7	179.7	160.3	141.3	120.8	112.3	106.5	105.7
47.5°	760.5	698.1	443.4	217.2	159.1	142.1	125.1	112.7	106.5	102.2	102.2
50°	851.1	768.2	425.5	189.3	139.4	127.4	115.8	109.2	104.5	100.7	100.3
52.5°	953.3	851.1	419.7	161.1	123.1	113.8	112.7	106.5	102.6	99.9	99.1
55°	1075.3	944.0	425.2	139.0	110.4	108.4	110.7	105.7	103.0	98.7	97.6
57.5°	1216.2	1034.6	419.3	120.4	101.4	103.4	108.4	105.7	103.4	98.0	96.4
60°	1349.0	1115.5	379.9	104.9	92.9	97.2	105.3	102.2	98.7	97.6	96.8
62.5°	1420.3	1141.9	302.8	92.9	86.3	91.0	100.3	96.4	94.1	96.8	97.2
65°	1421.1	1112.1	222.6	84.0	80.9	85.6	95.3	94.1	95.6	101.8	103.0
67.5°	1342.1	1021.5	157.2	75.9	75.5	81.3	97.6	105.3	106.5	112.7	112.7
68°	1315.0	999.0	146.0	74.7	74.3	81.3	99.5	107.3	108.0	113.8	113.5
70°	1166.3	844.5	105.7	70.1	72.4	87.1	110.0	112.7	108.0	114.6	114.2
72.5°	911.5	624.6	79.0	65.1	68.9	86.0	110.7	108.0	101.1	102.6	100.7
75°	616.0	398.1	65.1	59.6	61.2	72.8	100.7	101.8	93.7	92.2	89.8
77.5°	322.5	186.6	52.7	53.0	54.6	63.1	89.8	92.5	85.2	80.5	79.8
80°	118.9	74.0	43.0	46.9	47.6	55.4	77.1	81.3	74.3	70.9	70.1
82.5°	43.4	36.8	35.6	41.0	40.3	47.2	67.4	70.5	63.1	59.6	57.7
85°	12.0	13.6	22.5	32.1	31.4	36.8	54.2	56.9	50.7	41.8	40.7
87.5°	0.8	2.7	8.9	19.0	19.7	22.8	39.1	43.0	37.6	31.0	30.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)